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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHANG, VICTOR S

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

02/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,534	Applicant(s) SUZUKI ET AL.	
	Examiner VICTOR S. CHANG	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2008 and 07 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-10 and 12-30 is/are pending in the application.
- 4a) Of the above claim(s) 8,10,12,13,15,17-19,27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9,14,16,20-26,29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Introduction

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 12/15/2008 and 11/7/2008 have been entered. Claims 9 and 16 have been amended. Claim 11 has been cancelled. New claim 30 has been entered. Claims 9, 14, 16, 20-26, 29 and 30 are active.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. In response to the amendments, the grounds of rejection have been updated as set forth below. Rejections not maintained are withdrawn.

Rejections Based on Prior Art

4. Claims 9, 14, 16, 20-24, 26, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wisotzky et al. [US 3728182] in view of Schroeder et al. [US 3010930] and JP 49-052860.

The invention of Wisotzky relates to a carpet tile segment suitable for installation on surfaces without adhesive on floor surface (loose-lay floor tile). Embossing or other operations is used to provide a skid-resistant (nonskid) backing [col. 1, ll. 39; col. 5, ll. 47-58]. Figs 1 and 2

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illustrate that the backing is produced by fusing (solidifying) a layer of liquid vinyl plastisol, which is disposed on the back face of the carpet tile. The backing composition comprises vinyl chloride copolymer and plasticizer [col. 5, ll. 10-75]. Typical vinyl plastisol backing formulations comprises phthalic acid based plasticizers of dioethylphthalate 55 parts and butyl benzyl phthalate 15 parts per 100 parts of resin on a weight basis [col. 5, ll. 61-75]. The backing may be mechanically foamed [col. 6, ll. 35]. The backing material may be usefully employed for the preparation of other carpets and sheet materials, such as carpets having a fibrous woven or nonwoven face of a synthetic polymer fiber [col. 3, ll. 62-66].

For claims 9, 14, 16, 20, 22 and 29, Wisotzky is silent about 1) the composition of the composition and molar ratio of the comonomer of the vinyl chloride copolymer, and 2) a silicone surfactant (hydrophobic foam stabilizer). However, regarding 1), Schroeder teaches plastisols of various vinyl chloride copolymers, including copolymer of vinyl chloride and vinyl acetate [col. 2, ll. 60-61]. The plastisols are useful for making floor tile [col. 9, ll. 21]. Since Wisotzky expressly teaches the use of vinyl copolymer plastisol, it would have been obvious to one of ordinary skill in the art to select a plastisol of vinyl chloride and vinyl acetate, as taught by Schroeder, because the selection of a known material based on its suitability for its intended use supported a *prima facie* obviousness determination. See MPEP § 2144.07. As to the molar ratio of the monomers, since the general composition of the vinyl copolymer for the same end use are rendered obvious by the collective teachings of prior art, a workable molar ratio between the monomers are deemed to be obvious routine optimization to one of ordinary skill in the art, motivated by the desire to obtain a copolymer providing the required end use properties as the claimed invention. Regarding 2), JP '860 relates to a fused foam formed from a mechanically

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foamed PVC based plastisol, and teaches that the plastisol mixture comprises a silicone surfactant. It would have been obvious to one of ordinary skill in the art to modify the plastisol with a silicone surfactant taught by JP '860, motivated by the desire to obtain the beneficial effect of the silicone surfactant.

For claims 21, 23, the Official notice that di-2-ethylhexyl phthalate and diisononyl phthalate are known functionally equivalent phthalic acid based plasticizers for forming plastisols of vinyl chloride based polymers has been taken as admitted prior art.

For claims 24 and 25, since the collective teachings of prior art render the general structure and composition obvious, and for the same end use as the claimed invention, a workable foam expansion ratio is deemed to be an obvious optimization to one of ordinary skill in the art, dictated by the same required foam properties for the same use.

For claim 26, Wisotzky teaches that the foam material is embossed to form a skid-resistant backing. Further, the examiner takes Official notice that floor tile skid-resistant pattern such as a waffle-like pattern of crossed stripes is common and well known.

For claim 30, Wisotzky teaches that the backing material may be usefully employed for the preparation of other carpets and sheet materials, such as carpets having a fibrous woven or nonwoven face of a synthetic polymer fiber. One of ordinary skill in the art would have instantly envisaged sheet materials of common plastic floor tile, and carpets of synthetic polymer fibers of common nylon fiber, etc.

Response to Arguments

5. Applicants argue at Remarks pages 10-11

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“USP 3,728,182 to Wisotzky et al. in column 5, lines 61 to 75 disclose typical vinyl plastisol precoat and backing formulations which may be employed in the practice of their invention, in which the backing formulation is heavily loaded. Such heavily loaded formulation inevitably makes the backing very hard. Such a hard backing is not appropriate to attain the purpose of applicants' presently claimed invention.”

However, applicants' argument lack factual support, and is unpersuasive. Further, the claimed limitations fail to exclude any of the teachings of Wisotzky.

Applicants' arguments at pages 12-15 directed to withdrawn reference are moot.

Applicants argue at page 17

“It would be clear to one of ordinary skill in the art that the presence of a thick skin layer has an adverse effect for a nonskid property in the presently claimed invention. In addition, at a high temperature of 200°C or higher, the floor tile itself would be damaged by the high temperature (see page 8, item number (i) of the present specification).”

However, applicants' argument directed to features of JP '860 not relied upon fails to provide any evidence that a thick skin would necessarily be formed by practicing the collective teaching of prior art. Further, even if a thick skin is formed, no evidence whatsoever has been shown that the skin thickness has an adverse effect for non-skid property. Applicants' allegations in vacuum are unpersuasive. Nor such a feature, if present, is excluded by the claimed invention. Finally, applicants are reminded that applicants are also arguing that the claimed invention of present application must have a thick skin, and therefore is an inferior product having a poor non-skid property.

Applicants argue at pages 18-19

“the expansion rate defined in applicants' claims 24 and 25 is not an obvious optimization. For a PVC-based mechanically foamed material, it is suitable that the expansion rate is about 1.5 to 4 and preferably about 2.5 to 3. When the expansion rate exceeds about 4, the material shows a marked shrinking during curing by heating, and there is the possibility that workability in coating decreases during application of the foamed sol at a speed of coating of 10 m/minute or greater (the sol does not extend smoothly due to the great expansion rate, i.e., due to a great viscosity) (see page 7, lines

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17 to 23 of the present specification). Such feature of expansion rate is closely related to the feature of the polyvinyl chloride resin composition as defined in claim 9 and cannot be worked out by mere routine type tests.”

However, applicants’ speculation again fails to provide any evidence or reasoning why practicing the collective teachings would necessarily have failed to carry routine optimization.

Applicants argue at page 20

“applicants' present claim 26 is not a structure in which the foam material is embossed to form a skid-resistant backing. Applicants' present claim 26 is directed to the following: "A loose-lay floor tile according to claim 24, wherein the foamed material is disposed in a manner such that said foamed material forms stripes on the back face of said tile."”

However, applicants are reminded that at least the protruded portions which forms the embossed pattern reads on the limitation as claimed.

Applicants argue at page 21

“With respect to applicants' claim 30, none of the cited references teach or suggest a floor tile made of a plastic. All of the references relate to a "carpet tile," but not to a "floor tile." Indeed, as clearly understood from the disclosure on page 9, lines 25 to 26 of the present specification and from applicants' Fig. 1, the presently claimed invention relates to a loose-lay floor tile which is a piece of a flat sheet made of a plastic.”

However, since Wisotzky teaches a carpet tile for floor covering, it is unseen that the carpet tile (species) does not read on “floor tile” (genus). Further, Wisotzky teaches that the backing material may be usefully employed for the preparation of other carpets and sheet materials, such as carpets having a fibrous woven or nonwoven face of a synthetic polymer fiber. One of ordinary skill in the art would have instantly envisaged sheet materials of common plastic floor tile, and carpets of synthetic polymer fibers of common nylon fiber (a thermoplastic fiber), etc. Absence a specific tile structural limitation, the composition term “plastic” fails to exclude thermoplastic fiber based carpet tile.

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For the same reasons set forth above, applicants' arguments at pages 22-26 regarding the term "carpet tile" are unpersuasive. Applicants may wish to further clarify the intended scope of the claimed invention.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VICTOR S. CHANG whose telephone number is (571)272-1474. The examiner can normally be reached on 7:00 am - 5:00 pm, Tuesday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor S Chang/
Primary Examiner, Art Unit 1794